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## WHAT IS CLAIMED IS:

- An isolated nucleic acid molecule which encodes GB virus-B, said molecule capable of expressing said virus when transfected into cells.
- 5 2. The nucleic acid molecule of claim 1, wherein said molecule encodes the amino acid sequence of SEQ ID NO:2.
- 3. The nucleic acid molecule of claim 2, wherein said molecule comprises the nucleic acid sequence of SEQ ID NO:1.
  - 4. A DNA construct comprising a nucleic acid molecule according to claim 1.
- 5. A DNA construct comprising a nucleic acid molecule according to claim 3.
  - $\,$  6. An RNA transcript of the DNA construct of claims 4 or 5.
- 7. A cell transfected with the DNA construct of claims 4 or 5.
  - 8. A cell transfected with RNA transcripts of claim 6.
- 9. A GB virus-B polypeptide produced by the cell of claim 7.
  - 10. A GB virus-B polypeptide produced by the cell of claim 8.
  - 11. A GB virus-B produced by the cell of claim 7.
- 12. A GB virus-B produced by the cell of claim 8.

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13. A GB virus-B whose genome comprises a nucleic acid molecule according to claim 1.

- 14. A GB virus-B whose genome comprises a nucleic acid molecule according to claim 3.
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  15. A method for producing a GB virus-B comprising transfecting a host cell with the DNA construct of claims 4 or 5.

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- 16. A method for producing a GB virus-B comprising transfecting a host cell with the RNA transcript of claim 6.
  - 17. A composition comprising a nucleic acid molecule of claim 1 suspended in a suitable amount of a pharmaceutically acceptable diluent or excipient.
  - 18. A composition comprising a nucleic acid molecule of claim 3 suspended in a suitable amount of a pharmaceutically acceptable diluent or excipient.
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  19. A nucleic acid molecule comprising a chimeric virus genome, said genome being a GB virus-B genome according to claim 1 in which a 3' or 5' UTR sequence of the genome is replaced by a corresponding region of the 3' or 5' UTR sequence of a hepatitis C virus genome.
  - 20. The nucleic acid molecule of claim 19, wherein a 3' UTR sequence of the genome of a GB virus-B is replaced by a corresponding 3' UTR sequence of a hepatitis C virus genome.
  - 21. The nucleic acid molecule of claim 20, wherein the 3' UTR sequence is the 3' UTR terminal stem loop sequence.

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22. The nucleic acid molecule of claim 19, wherein a 5' UTR sequence of the genome of a GB virus-B has been replaced by a corresponding 5' UTR sequence of a hepatitis C virus genome.

- 23. The nucleic acid molecule of claim 22, wherein the 5' UTR sequence is the IRES sequence.
- 24. A nucleic acid molecule comprising a chimeric virus genome, said genome being a GB virus-B genome according to claim 1 in which the non-structural region of the genome of a GB virus-B has been replaced by the non-structural region of a hepatitis C virus genome.
- 25. The nucleic acid molecule of claim 24, wherein at least one gene from the non-structural region of the genome of a GB virus-B has been replaced by the corresponding gene from the non-structural region of a hepatitis C virus genome.
  - 26. The nucleic acid molecule of claim 25, wherein the gene from the non-structural region is selected from the group consisting of NS3 protease, NS3 RNA helicase, or NS5B RNA polymerase.
  - 27. A nucleic acid molecule comprising a chimeric virus genome, said genome being a GB virus-B genome according to claim 1 in which the structural region of the genome of a GB virus-B has been replaced by the structural region of a hepatitis C virus genome.
    - 28. The nucleic acid molecule of claim 27, wherein at least one gene from the structural region of the genome of a GB virus-B has been replaced by the

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corresponding gene from the structural region of a hepatitis C virus genome.

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- 29. The nucleic acid molecule of claim 28, wherein the gene from the structural region is selected from the group consisting of E1, E2 or C.
- 30. The nucleic acid molecule of claim 28, wherein the E1 and E2 genes from the structural region of the genome of a GB virus-B have been replaced by the E1 and E2 genes of a hepatitis C virus genome.
- 31. The nucleic acid molecule of claim 28, wherein the El gene from the structural region of the genome of a GB virus-B has been replaced by the El gene of a hepatitis C virus genome.
- 32. The nucleic acid molecule of claim 28, wherein the E2 gene from the structural regions of the genome of a GB virus-B has been replaced by the E2 gene of a hepatitis C virus genome.
- 33. A DNA construct comprising the nucleic acid molecule of claims 19, 24 or 27.
- 34. An RNA transcript of the DNA construct of claim 33.
  - 35. A virus whose genome comprises a nucleic acid molecule according to claims 19, 24 or 27.
- 36. A nucleic acid molecule comprising a chimeric virus genome, said genome being a hepatitis C virus genome in which a 3' or 5' UTR sequence of the genome is replaced by a corresponding region of the 3' or 5' UTR sequence of a GB virus-B genome according to claim 1.

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37. A nucleic acid molecule comprising a chimeric virus genome, said genome being a hepatitis C virus genome in which the non-structural region of the genome has been replaced by the non-structural region of a GB virus-B genome according to claim 1.

- 38. A nucleic acid molecule comprising a chimeric virus genome, said genome being a hepatitis C virus genome in which the structural region of the genome has been replaced by the structural region of a GB virus-B genome according to claim 1.
- 39. A polypeptide encoded by the nucleic acid molecule of claims 19, 24 or 27.
- 40. A polypeptide encoded by the nucleic acid molecule of claims 36, 37 or 38.

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